42-045-00070

Monroe Energy, LLC
4101 Post Road
Trainer, PA 19061
(610) 364-8000

July 29, 2015

FedEx 7740 9837 3482

Mr. James Rebarchak
Commonwealth of Pennsylvania
Department of Environmental Protection
Southeast Regional Office
2 East Main Street
Norristown, PA 19401

Re: Monroe Energy, LLC – Trainer Refinery
40 CFR 63, Subpart UUU: Semi-Annual Periodic Report
40 CFR 60, NSPS J: Semi-Annual Report
Reporting Period: January 1 – June 30, 2015

Dear Mr. Rebarchak:

In accordance with 40 CFR 63 Subpart UUU - National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units and Sulfur Recovery Plants, Monroe Energy, LLC's Trainer Refinery hereby submits this semi-annual compliance report (per §63.1575(b)(2)) for the period beginning January 1, 2015 and ending June 30, 2015. This report is also being submitted in compliance with 40 CFR 60.107(d), (e) and (f) and 40 CFR 60.7 (c) for the continuous monitoring systems required by the New Source Performance Standards (NSPS) for the North Side and South Side refinery fuel gas systems that are continuously monitored for H_2S, the Sulfur Recovery Unit (SRU) for SO_2, and the Fluid Catalytic Cracking Unit (FCCU) for PM, CO, and SO_2.

Please note that the Refinery's Main Flare and Sour Gas Flare accepted NSPS J applicability on July 1, 2013, pursuant to the Refinery's Consent Decree (Civil Action H-05-0258). On October 1, 2013, the Refinery submitted data to the Pennsylvania Department of Environmental Protection (PADEP) certifying the performance of the H_2S CEMS associated with these flares.

MONROE ENERGY, LLC
TRAINER REFINERY

SEMIANNUAL PERIODIC REPORT
Reporting Period: January 1, 2015 – June 30, 2015

The Refinery MACT 2 emission standards (40 CFR 63 Subpart UUU - National Emission Standards for Hazardous Air Pollutants for Petroleum Refineries: Catalytic Cracking Units, Catalytic Reforming Units and Sulfur Recovery Plants) regulate the following refinery affected sources:

1. Fluid Catalytic Cracking Unit (FCCU – Source ID 101)
2. Catalytic Reforming Unit (Platformer Unit – Source ID 119)
3. Sulfur Recovery Unit (SRU – Source ID 102)
4. Each Bypass line serving the above units that could divert an affected vent stream away from a control device used to comply with the requirements of this subpart.

This semi-annual report for the period beginning January 1, 2015 and ending June 30, 2015 addresses the status of facility compliance with Subpart UUU.

COMPLIANCE STATUS: 40 CFR 63 SUBPART UUU

1. FCCU:

[§63. 1564-1565]

The refinery operates one FCCU. On November 22, 2005 the facility received approval from U.S. EPA for an Alternative Monitoring Plan (AMP) in lieu of the requirement to install and operate a Continuous Opacity Monitoring (COM) System on the FCCU wet gas scrubber (WGS) stack. The AMP requires the refinery to monitor WGS liquid-to-gas ratio to continuously demonstrate compliance with the limits established during performance testing conducted in 2006 and 2007.

The average liquid-to-gas ratio was calculated for each operating hour during the period from January 1 to June 30, 2015. The L-to-G ratio was above the minimum ratio of 0.08 gal/scf established during the 2007 performance test for all hours during the reporting period.

For the reporting period (January 1 to June 30, 2015), the FCCU was in compliance with the Refinery MACT 2.

As required under §63.1575(d) and (e), the following information is provided for the FCCU for the period January 1, 2015 to June 30, 2015:

Startup, shutdown:	0	hours
Control equipment problems:	0	hours
Process problems:	4	hours
Other known causes:	0	hours
Other unknown causes:	0	hours

(e)(7) A summary of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period (recorded in minutes for opacity and hours for gases and in the averaging time specified in the regulation for other types of standards), and the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system as a percent of the total source operating time during that reporting period: See attached Table 1.

(e)(8) A breakdown of the total duration of downtime for the continuous opacity monitoring system or continuous emission monitoring system during the reporting period into periods that are due to monitoring equipment malfunctions, non-monitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes: See attached Table 1.

(e)(9) An identification of each HAP that was monitored at the affected source: CO is monitored as a surrogate for organic HAPs.

(e)(10) A brief description of the process units:

The Fluidized Catalytic Cracking Unit (FCCU) is a refinery process unit used for the production of gasoline. Heavy oil, which is used as the feedstock, is catalytically cracked in a fluidized catalyst bed to produce C3 olefins, C4 olefins and isobutanes. In the cracking reactor, heavy carbonaceous materials (coke) become deposited on the catalyst, requiring continuous regeneration. The catalyst is circulated to a fluidized bed regenerator where these deposits are combusted. Most of the catalyst particles entrained in the regenerator flue gas are then removed in two stages of cyclones within the regenerator vessel and then are returned to the fluidized bed reactor.

At the Trainer Refinery, the FCCU control devices include a CO Boiler for CO reduction, an Enhanced Selective Non-Catalytic Reduction (eSNCR) unit for NO_x reduction, an electrostatic precipitator for PM reduction and a wet gas scrubber for PM and SO_2 reduction.

(e)(11) The monitoring equipment manufacturer(s) and model number(s): SO_2 Analyzer – Ametek Process Instruments, Model 921 Single Gas Analyzer; NOx Analyzer – Ametek Process Instruments, Model 922 Single Gas Analyzer; CO and O_2 Analyzer – Servomex Company Inc., Model 4900 Analyzer.

Also, as part of the Subpart UUU requirements, the refinery is required to monitor the vent gas temperature at the inlet to the Chlorsorb unit and demonstrate that the daily average temperature has not exceeded the maximum temperature demonstrated during the 2006 performance test. For the period January 1, 2015 to June 30, 2015, the Platformer vent gas to the Chlorsorb unit was monitored continuously and the daily average temperature during the reporting period did not exceed the maximum allowable inlet temperature of 350 deg. F when the Platformer Regenerator was operating.

3. SRU

[§63.1568]

The refinery operates a Sulfur Recovery Unit with two parallel trains. The required SO_2 and O_2 Continuous Emissions Monitoring System (CEMS) were installed in April 2005 and have been in operation since installation.

As required under §63.1575(d) and (e), information must be provided for any deviation of the emission limitation for the SRU: During this reporting period there were no deviations reported; therefore, no additional information is provided.

4. Bypass Lines

[§63.1569]

The FCCU does not have any bypass lines. The Platformer Chlorsorb Unit was not bypassed during this reporting period. The Sulfur Recovery Unit was not bypassed during this reporting period.

5. Start-up, Shutdown, and Malfunction Plans (SSMP)

[§63.10(d)(5)]

Any startup, shutdown, and malfunction at the Facility which occurred during the reporting period were managed consistent with the facility's SSMP. A record of the malfunction events and copies of the event notification letters, if any, to PADEP are provided in Attachment A.

Table 1: Monitor Downtime Events

(§60.107 and §63.1575)

TABLE 1
Downtime Events - Duration

Plant: MONROE ENERGY, LLC.

Report Period: 01/01/2015 00:00 Through 06/30/2015 23:59

Time Online Criteria: 1 minute(s)

Source: SRUSTACK
Parameter: SO2PPMC
Interval: 001H

Operating Hours: 4,328.40

Incident ID	Start Date/Time	End Date/Time	Duration (hours)	Reason Code - Description Action Code - Description
		Number of Events:	23	
		Total Duration:	69.00 hours	

CMS Performance Summary

1. CMS downtime in the reporting period due to:	
a. Monitor equipment malfunctions	65
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	4
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	**69**
3. [Total CMS Downtime] x (100) / [Total source operating time]	**1.6%**

TABLE 1
Downtime Events - Duration

Plant: MONROE ENERGY, LLC.

Report Period: 01/01/2015 00:00 Through 06/30/2015 23:59

Time Online Criteria: 1 minute(s)

Source: FCCSTACK
Parameter: COPPMC
Interval: 001H

Operating Hours: 4,306.90

Incident ID	Start Date/Time	End Date/Time	Duration (hours)	Reason Code - Description Action Code - Description
24	06/08/2015 08:00	06/08/2015 10:59	3.00	08 - NORMAL OPERATION 14 - RECALIBRATION
Comments: 2Q2015 Linearity Test on NOx (ppm), CO (ppm) & O2 (%) analyzer.				
25	06/12/2015 07:00	06/12/2015 08:59	2.00	08 - NORMAL OPERATION 14 - RECALIBRATION
Comments: 2Q2015 Linearity Test on SO2 (ppm) analyzer.				
26	06/18/2015 07:00	06/18/2015 07:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
27	06/19/2015 09:00	06/19/2015 09:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
28	06/21/2015 04:00	06/21/2015 10:59	7.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
29	06/29/2015 06:00	06/29/2015 08:59	3.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER

Number of Events: 29

Total Duration: 54.00 hours

CMS Performance Summary

1. CMS downtime in the reporting period due to:	
a. Monitor equipment malfunctions	26
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	28
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	**54**
3. [Total CMS Downtime] x (100) / [Total source operating time]	**1.3%**

TABLE 1
Downtime Events - Duration

Plant: MONROE ENERGY, LLC.

Report Period: 01/01/2015 00:00 Through 06/30/2015 23:59

Time Online Criteria: 1 minute(s)

Source: FCCSTACK
Parameter: SO2PPMC
Interval: 001H
Operating Hours: 4,306.90

Incident ID	Start Date/Time	End Date/Time	Duration (hours)	Reason Code - Description Action Code - Description
1	01/05/2015 06:00	01/05/2015 09:59	4.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
2	02/16/2015 07:00	02/16/2015 08:59	2.00	08 - NORMAL OPERATION 12 - EXCESS DRIFT ANCILLARY ANALYZER
3	02/17/2015 07:00	02/17/2015 08:59	2.00	08 - NORMAL OPERATION 12 - EXCESS DRIFT ANCILLARY ANALYZER
4	02/20/2015 06:00	02/20/2015 08:59	3.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
5	02/27/2015 06:00	02/27/2015 09:59	4.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
6	03/03/2015 08:00	03/03/2015 09:59	2.00	08 - NORMAL OPERATION 14 - RECALIBRATION
Comments:	1Q2015 Linearity Test on NOx (ppm) & SO2 (ppm) analyzer.			
7	03/05/2015 09:00	03/05/2015 10:59	2.00	08 - NORMAL OPERATION 14 - RECALIBRATION
Comments:	1Q2015 Linearity Test on CO (ppm) & O2 (%) analyzer.			
8	03/17/2015 05:00	03/17/2015 06:59	2.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
9	03/31/2015 05:00	03/31/2015 07:59	3.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
10	04/20/2015 07:00	04/20/2015 07:59	1.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
11	05/11/2015 05:00	05/11/2015 08:59	4.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
12	06/08/2015 08:00	06/08/2015 10:59	3.00	08 - NORMAL OPERATION 14 - RECALIBRATION
Comments:	2Q2015 Linearity Test on NOx (ppm), CO (ppm) & O2 (%) analyzer.			
13	06/12/2015 05:00	06/12/2015 08:59	4.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
Comments:	Failed calibration followed by 2Q2015 Linearity Test on SO2 (ppm) analyzer.			
14	06/18/2015 05:00	06/18/2015 07:59	3.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
15	06/20/2015 05:00	06/20/2015 11:59	7.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
16	06/21/2015 04:00	06/21/2015 09:59	6.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
17	06/29/2015 05:00	06/29/2015 08:59	4.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
		Number of Events:	17	
		Total Duration:	56.00 hours	

CMS Performance Summary

1. CMS downtime in the reporting period due to:	
a. Monitor equipment malfunctions	49
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	7
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	**56**
3. [Total CMS Downtime] x (100) / [Total source operating time]	**1.3%**

TABLE 1
Downtime Events - Duration
Plant: MONROE ENERGY, LLC.
Report Period: 01/01/2015 00:00 Through 06/30/2015 23:59
Time Online Criteria: 1 minute(s)

Source: S_H2S
Parameter: S_H2S
Interval: 001H

Operating Hours: 4,344.00

Incident ID	Start Date/Time	End Date/Time	Duration (hours)	Reason Code - Description Action Code - Description
1	02/18/2015 13:00	02/18/2015 13:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
Comments: 1Q2015 Linearity Test on H2S (ppm) analyzer.				
2	02/20/2015 07:00	02/20/2015 07:59	1.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
3	02/21/2015 07:00	02/21/2015 13:59	7.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
4	02/22/2015 07:00	02/22/2015 08:59	2.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
5	02/23/2015 07:00	02/23/2015 07:59	1.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
6	05/12/2015 06:00	05/12/2015 06:59	1.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
7	06/01/2015 09:00	06/01/2015 10:59	2.00	08 - NORMAL OPERATION 14 - RECALIBRATION
Comments: 2Q2015 Linearity Test on H2S (ppm) analyzer.				

Number of Events: 7

Total Duration: 15.00 hours

CMS Performance Summary

1. CMS downtime in the reporting period due to:	
a. Monitor equipment malfunctions	12
b. Non-Monitor equipment malfunctions	7
c. Quality assurance calibration	3
d. Other known causes	7
e. Unknown causes	7
2. Total CMS Downtime	**36**
3. [Total CMS Downtime] x (100) / [Total source operating time]	**0.83%**

TABLE 1
Downtime Events - Duration
Plant: MONROE ENERGY, LLC.
Report Period: 01/01/2015 00:00 Through 06/30/2015 23:59
Time Online Criteria: 1 minute(s)

Source: SRUFLARE
Parameter: H2SCONC
Interval: 001H
Operating Hours: 4,344.00

Incident ID	Start Date/Time	End Date/Time	Duration (hours)	Reason Code - Description Action Code - Description
1	02/13/2015 13:00	02/13/2015 13:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
2	02/15/2015 06:00	02/15/2015 14:59	9.00	08 - NORMAL OPERATION 14 - RECALIBRATION
3	02/16/2015 06:00	02/16/2015 10:59	5.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
4	02/21/2015 06:00	02/21/2015 10:59	5.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
5	02/22/2015 06:00	02/22/2015 12:59	7.00	08 - NORMAL OPERATION 12 - EXCESS DRIFT ANCILLARY ANALYZER
6	02/22/2015 16:00	02/22/2015 16:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
Comments:	1Q2015 Linearity Test on H2S (ppm) analyzer.			
7	02/25/2015 06:00	02/25/2015 11:59	6.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
8	03/06/2015 06:00	03/06/2015 12:59	7.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
9	03/07/2015 06:00	03/07/2015 11:59	6.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
10	04/14/2015 05:00	04/14/2015 15:59	11.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
11	05/11/2015 08:00	05/11/2015 14:59	7.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
12	05/12/2015 05:00	05/12/2015 05:59	1.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
13	05/27/2015 05:00	05/27/2015 19:59	15.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
14	05/28/2015 09:00	05/28/2015 09:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
15	05/29/2015 05:00	05/29/2015 05:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
16	06/08/2015 14:00	06/08/2015 14:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
17	06/09/2015 05:00	06/09/2015 05:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
18	06/10/2015 05:00	06/10/2015 05:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
19	06/11/2015 05:00	06/11/2015 05:59	1.00	08 - NORMAL OPERATION 14 - RECALIBRATION
20	06/12/2015 05:00	06/12/2015 19:59	15.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
21	06/13/2015 05:00	06/13/2015 09:59	5.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
22	06/14/2015 05:00	06/14/2015 07:59	3.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
23	06/15/2015 05:00	06/15/2015 11:59	7.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER
24	06/16/2015 06:00	06/16/2015 09:59	4.00	08 - NORMAL OPERATION 11 - EXCESS DRIFT PRIMARY ANALYZER

Attachment A

- Environmental Incident Reports
  [There were no reportable environmental incidents during the reporting period.]

- Excess Emission Report Form for Sources with Continuous Emission Monitoring Systems